

GARMIN®

GNX™ 120/130



Installation Instructions

Important Safety Information

⚠ WARNING

See the *Important Safety and Product Information* guide in the product box for product warnings and other important information.

⚠ CAUTION

To avoid possible personal injury, always wear safety goggles, ear protection, and a dust mask when drilling, cutting, or sanding.

NOTICE

When drilling or cutting, always check what is on the opposite side of the surface to avoid damaging the vessel.

Tools Needed

- Drill and drill bits
 - 44 mm (1 3/4 in.) hole saw
 - 4.5 mm (3/16 in.) drill bit
- Marine sealant (recommended)

Installing the Device

Mounting Considerations

NOTICE

This device should be mounted in a location that is not exposed to extreme temperatures or conditions. The temperature range for this device is listed in the product specifications. Extended exposure to temperatures exceeding the specified temperature range, in storage or operating conditions, may cause device failure. Extreme-temperature-induced damage and related consequences are not covered by the warranty.

The mounting surface must be flat to avoid damaging the device when it is mounted.

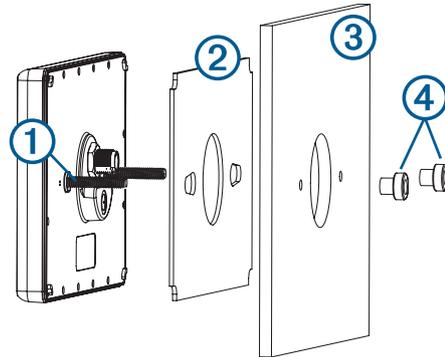
When selecting a mounting location, observe these considerations.

- The mounting location should be at or below eye level to provide optimal viewing as you operate your vessel.
- The mounting surface must be strong enough to support the weight of the device and protect it from excessive vibration or shock.
- To avoid interference with a magnetic compass, the device should not be installed closer to a compass than the compass-safe distance value listed in the product specifications.

- The area behind the mounting surface must allow room for the routing and connection of the cables.

Mounting the Device

- 1 Trim the flush-mount template and ensure it will fit in the location where you plan to mount the marine instrument.
The flush-mount template is included in the product box.
- 2 Secure the template to the selected mounting location.
- 3 Using a 44 mm (1 3/4 in.) hole saw or rotary cutting tool, cut the hole in the center of the template.
- 4 Drill the 4.5 mm (3/16 in.) mounting holes.
- 5 Remove the remainder of the template.
- 6 Install the threaded rods ① in the back of the marine instrument.



- 7 Place the included gasket ② on the back of the device.
You should apply marine sealant around the gasket to prevent leakage behind the dashboard (recommended).
- 8 Place the marine instrument into the cutout ③.
- 9 Securely fasten the marine instrument from behind the mounting surface by tightening the supplied thumb nuts ④ on the threaded rods.
- 10 Connect the NMEA 2000® drop cable and route it to your NMEA 2000 backbone.
- 11 Snap the bezel into place.

Connection Considerations

The marine instrument connects to power and to data sources through a NMEA 2000 network.

Although the instrument cannot directly receive NMEA® 0183 data, it can display NMEA 0183 data from sources connected to a GNX 20 or GNX 21 device (sold separately) on the same NMEA 2000 network.

The instrument can also receive data from Nexus® instruments and sensors using a GND™ 10 device (sold separately).

NMEA 2000 Connection Considerations

NOTICE

If you are connecting to an **existing** NMEA 2000 network, identify the NMEA 2000 power cable. Only one NMEA 2000 power cable is required for the NMEA 2000 network to operate properly.

A NMEA 2000 Power Isolator (010-11580-00) should be used in installations where the existing NMEA 2000 network manufacturer is unknown.

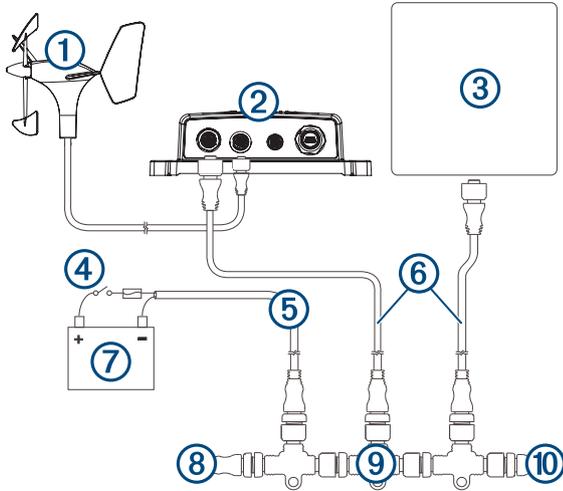
If you are installing a NMEA 2000 power cable, you must connect it to the boat ignition switch or through another in-line



switch. NMEA 2000 devices will drain your battery if the NMEA 2000 power cable is connected to the battery directly.

The marine instrument connects to a NMEA 2000 network on your boat. The NMEA 2000 network provides power to the marine instrument and data from NMEA 2000 devices such as a wind sensor. The included NMEA 2000 cables and connectors allow you to either connect the device to your existing NMEA 2000 network or create a basic NMEA 2000 network if needed.

If you are unfamiliar with NMEA 2000, you should read the "NMEA 2000 Network Fundamentals" chapter of the *Technical Reference for NMEA 2000 Products*. To download the reference, go to garmin.com/manuals/nmea_2000.



①	Wind transducer
②	GND 10 black box bridge
③	Marine instrument
④	Ignition or in-line switch
⑤	NMEA 2000 power cable
⑥	NMEA 2000 drop cable
⑦	Power source
⑧	NMEA 2000 terminator or backbone cable
⑨	NMEA 2000 T-connector
⑩	NMEA 2000 terminator or backbone cable

Specifications

All models

Specification	Measurement
Water rating ¹	IEC 60529 IPX7
Temperature range	From -15 to 70°C (from 5 to 158°F)
Material	Polycarbonate plastic
NMEA 2000 input voltage	From 9 to 16 Vdc
NMEA 2000 LEN @ 9 Vdc	3
Compass-safe distance	0 mm (0 in.)

GNX 120 models

Specification	Measurement
Dimensions (W x H x D)	181 x 115 x 17 mm (7.13 x 4.53 x 0.7 in.)
Display size (W x H)	150 x 83 mm (5.9 x 3.27 in.)

¹ The device withstands incidental exposure to water of up to 1 m for up to 30 min. For more information, go to www.garmin.com/waterrating.

Specification	Measurement
Weight	380 g (13.4 oz.)
Power usage	1.1 W maximum

GNX 130 models

Specification	Measurement
Dimensions (W x H x D)	249 x 153 x 19 mm (9.8 x 6.02 x 0.75 in.)
Display size (W x H)	207 x 116 mm (8.15 x 4.57 in.)
Weight	820 g (29 oz.)
Power usage	1.3 W maximum

NMEA 2000 PGN Information

Transmit and Receive

059392	ISO acknowledgment
059904	ISO request
060160	ISO transport protocol: Data transfer
060416	ISO transport protocol: Connection management
060928	ISO address claim
061184	Product information
126208	NMEA: Command, request, and acknowledge group function
126993	Heartbeat
126996	Product information

Transmit

126464	Transmit PGN list group function
126998	Configuration information

Receive

065240	Commanded address
126992	System time
127245	Rudder
127250	Vessel heading
127488	Engine parameters: Rapid update
127489	Engine parameters: Dynamic
127508	Battery status
128259	Speed: Water referenced
128267	Water depth
129025	Position: Rapid update
129026	COG and SOG: Rapid update
129029	GNSS position data
129283	Cross track error
129284	Navigation data
129285	Navigation route and waypoint info
129539	GNSS dilution of precision (DOP)
130306	Wind data
130310	Environmental parameters
130311	Environmental parameters
130312	Temperature
130313	Humidity
130314	Actual pressure

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